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Cromlish et al.

[54] HUMAN CYCLOOXYGENASE-2 cDNA AND
ASSAYS FOR EVALUATING
CYCLOOXYGENASE-2 ACTIVITY

[75] Inventors: Wanda A. Cromlish, Montreal; Brian
P. Kennedy, Kirkland; Gary O'Neill,
Dollard Des Ormeaux; Philip J.
Vickers, Pierrefonds; Elizabeth Wong,
Montreal; Joseph A. Mancini, St.
Leonard, all of Canada

[73] Assignee: Merck Frosst Canada, Inc., Kirkland,
Canada

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536/23.2

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[56] **References Cited**

U.S. PATENT DOCUMENTS

4,562,155 12/1985 Ricciardi 435/172.3

FOREIGN PATENT DOCUMENTS

WO94/06919 3/1994 WIPO

OTHER PUBLICATIONS

O'Banion et al. Proc. Natl. Acad. Sci. vol. 89, pp.
4888-4892, Jun. 1992.

Maier, Hla, and Maciag (J. Biol. Chem. 265:10805-10808
(1990).

Hla and Macaig (J. Biol. Chem. 266:24059-24063 (1991).
Hla and Neilson (Proc. Natl. Acad. Sci., (USA) 89:7384-7388 (1992).
Funk, C. D., Funk, L. B., Kennedy, M. E., Pong, A. S., and Fitzgerald, G. A. (1991) FASEB J, 5 pp. 2304-2312.
Sato, et al, Biochemical and Biophysical Research Comm. vol. 141, No. 1, 1986, pp. 285-291 (Nov. 26, 1986).
Zhang, et al, Prostaglandins Leukotriens and Essential Fatty Acids (1993) 49, pp. 521-526.
Wiesenbergs-Boettcher, et al, Drugs Exptl. Clin. Res. XV(11/12) 501-509 (1989) entitled "The Pharmacological Profile of CGP 28238, A Novel Highly Potent Anti-Inflammatory Compound".
Tsuji, et al, Chem. Pharm. Bull. 40(9) 2399-2409 (1992) entitled "Studies on Antiinflammatory Agents.I. Synthesis and Pharmacological Properties of 2'-Phenoxy-methane-sulfonamide Derivatives".
Gans, et al, Journ. of Pharm. & Exper. Ther., vol. 254, No. 1, pp. 180-187 (1990) entitled "Anti-Inflammatory and Safety Profile of DuP 697, A Novel Orally Effective Pro...".
Hoff, et al, Fed. of European Biochem. Soc. vol. 320, No. 1, 38-42 (Mar. 1993) entitled "Differentiation-associated expression of prostaglandin G/H synthase in monocytic cells".
ACS 1994 Registry Number 80937-31-1, Flosulide.
Rodan, et al, J. Bone Mineral Research, 1(2):213-220, 1986.
Patel, et al, Virology 149(2):174-189, Mar. 1986.

Primary Examiner—Mindy Fleisher
Assistant Examiner—David Schwickel
Attorney, Agent, or Firm—Curtis C. Panzer; David L. Rose

[57]

ABSTRACT

The invention discloses a human cyclooxygenase-2 cDNA, a human cyclooxygenase-2 and assays for preferentially and independently measuring cyclooxygenase-2 or cyclooxygenase-1 activity present in a given sample.

21 Claims, 4 Drawing Sheets